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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/630,369

07/30/2003

Peter Coleman

60130-1853; 02MRA0222

8947

26096

7590

10/31/2006

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EXAMINER

LUONG, VINH

ART UNIT

PAPER NUMBER

3682

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/630,369

Applicant(s)

COLEMAN ET AL.

Examiner

Vinh T. Luong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 20-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.


**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/24/06; 7/30/03 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
Vinh T. Luong  
Primary Examiner

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)                     | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

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1. The Amendment filed on August 24, 2006 has been entered.
2. Applicant's election without traverse of the species of Figs. 3 and 3A in the reply filed on February 9, 2006 is acknowledged.
3. No claim is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species in view of Applicant's cancellation of claims 13-19. There is no allowable generic or linking claim. Election was made **without** traverse in the reply filed on February 9, 2006.
4. The drawings were received on August 24, 2006. These drawings are not accepted by the Examiner because the drawings do not comply with 37 CFR 1.84. See Form PTO-948 attached.
5. The drawings are objected to because the drawings do not comply with 37 CFR 1.84. For example, the first and second directions in claims 1 and 12 are not shown by the arrows. See 37 CFR 1.84(r)(3) and other informalities noted in Forms PTO-948 attached to Office actions.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

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pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed features, such as, the first and second directions in claims 1 and 12 must be shown or the features canceled from the claims. No new matter should be entered.

7. Claims 12, 22, and 23 are objected to because of the following informalities: no antecedent basis is seen for the term “said rest *condition*” in claim 12. Appropriate correction is required.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 21 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term “operable” in claims 21 and 23 is vague and indefinite in the sense that things which may be done are not required to be done. For example, the actuator is operable, but is not required structurally to be operated to move a component of a latch assembly from a first position to a second position to change a state of the latch assembly. See “discordable” in *Mathis v. Hydro Air Industries*, 1 USPQ2d 1513, 1527 (D.C. Calif. 1986), “crimpable” in *Application of Collier*, 158 USPQ 266 (CCPA 1968), “removable” in *In re Burke Inc.*, 22 USPQ2d 1368, 1372

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(D.C. Calif. 1992), and “comparable” in *Ex parte Anderson*, 21 USPQ2d 1241, 1249 (BPAI 1992).

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. Claims 1-6, 8-12, 20, 22, and claims 21 and 23, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Pearson et al. (EP 0 939 245 A1 cited by Applicant).

Regarding claim 1, Pearson teaches an actuator assembly 10 comprising: an actuator 14 drivingly connected to an output member 30 by a transmission path, wherein said actuator 14 moves (i.e., rotates) said output member 30 about a pivot point 32 in a first direction (clockwise direction) from a rest position to an actuated position and moves said output member 30 in a second direction (counter clockwise direction) from said actuated position to said rest position; and an energy storing member 40 which provides a force, wherein movement of said output member 30 by said actuator 14 in said first direction is assisted by said energy storing member 40 and movement of said output member 30 by said actuator 14 in said second direction stores energy in said energy storing member 40, and with said output member 30 in said rest position, said force acts substantially through said pivot point 32. *Ibid.* paragraphs [0019]-[0022] and claims 1-13.

Claim 1 and other claims below are anticipated by Pearson because Pearson teaches each positively claimed element in the claim and its functional statement. On the other hand, note that the “wherein” or “whereby” clause that merely states the inherent results of limitations in the claim adds nothing to the claim’s patentability or substance. *Texas Instruments Inc. v. International Trade Commission*, 26 USPQ2d 1018 (Fed. Cir. 1993); *Griffin v. Bertina*, 62

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USPQ2d 1431 (Fed. Cir. 2002); and *Amazon.com Inc. v. Barnesandnoble.com Inc.*, 57 USPQ2d 1747 (Fed. Cir. 2001).

Regarding claim 2, a resultant torque is not generated on said output member 30 because said force acts substantially through said pivot point 32 when said output member 30 is in said rest position.

Regarding claim 3, said energy storing member 40 is positioned such that said force acts through said pivot point 32 of said output member 30.

Regarding claim 4, said energy storing member 40 acts on said output member 30.

Regarding claim 5, said output member 30 includes an abutment 46 and said energy storage member 40 acts on said abutment 46 of said output member 30.

Regarding claim 6, said abutment 46 moves/rotates about said pivot point 32 as said output member 30 moves/rotates.

Regarding claim 8, said energy storing member 40 provides an assistance force as said output member 30 moves in said first direction, and said assistance force progressively increases to a maximum and then decreasing from said maximum. *Ibid.* paragraph [0022].

Regarding claim 9, said energy storing member 40 is a helical spring.

Regarding claim 10, said helical spring 40 includes a circular portion including at least one coil and at least one arm (at 46 in Fig. 1) which acts on said output member 30.

Regarding claim 11, said helical spring 40 includes a second arm 40 (Fig. 1) which acts on a fixed abutment 44.

Regarding claim 12, Pearson teaches an actuator assembly comprising:

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an actuator 14 drivingly connected to an output member 30 by a transmission path, wherein said actuator 14 moves (i.e., rotates) said output member 30 about a pivot point 32 in a first direction from a rest position to an actuated position and moves said output member 30 in a second direction from said actuated position to said rest position; and

an energy storing member 40 which provides a force, wherein movement of said output member 30 by said actuator 14 in said first direction being assisted by said energy storing member 40 over a substantial portion of said movement to said actuated position, and movement of said output member 30 by said actuator 14 in said second direction stores energy in said energy storing member 40 over a substantial portion of said movement to said rest position, and with said output member 30 in said rest condition, said force acts to drive said output member 30 in said second direction.

Regarding claims 20 and 22, see regarding claim 5 above.

Regarding claims 21 and 23, said actuator is *operable* to move a component of a latch assembly (i.e., a drive-by-wire system. *Ibid.* paragraph [0005]. See, e.g., the drive-by-wire system in WO 98/53165 cited by Applicant) from a first position to a second position to change a state of the latch assembly.

12. Claims 1-8, 12, 20, 22, and claims 21 and 23, as best understood, are rejected under 35 U.S.C. 102(a) as being anticipated by Spurr (EP 1 128 006 A2 published on August 29, 2001 and cited by Applicant).

Regarding claim 1, Spurr teaches an actuator assembly 10, 40 comprising:

an actuator 14 drivingly connected to an output member 24 (Figs. 1 and 2), 60 (Fig. 3) by a transmission path, wherein said actuator 14 moves said output member 24, 60 about

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a pivot point A (Fig. 3) in a first direction from a rest position (see, e.g., abstract) to an actuated position (see abstract) and moves said output member 24, 60 in a second direction from said actuated position to said rest position; and

an energy storing member 20, 42, 78 which provides a force, movement of said output member 24, 60 by said actuator 14 in said first direction being assisted by said energy storing member 20, 42, 78 and movement of said output member 24, 60 by said actuator 14 in said second direction stores energy in said energy storing member 20, 42, 78, and with said output member 24, 60 in said rest position, said force acts *substantially* through said pivot point A. See abstract, paragraphs [0006]-[0034].

Claim 1 and other claims below are anticipated by Spurr because Spurr teaches each positively claimed element in the claim and its functional limitation. See Abstract and claims 1-25. On the other hand, the “wherein” or “whereby” clause that merely states the inherent results of limitations in the claim adds nothing to the claim’s patentability or substance. See *Texas Instruments Inc. v. International Trade Commission, supra*.

Regarding claim 2, since said force acts *substantially* through said pivot point A when said output member 24, 60 is in said rest position a resultant torque is not generated on said output member 24, 60.

Regarding claim 3, said energy storing member 20, 42, 78 is positioned such that said force acts through said pivot point A of said output member 24, 60.

Regarding claim 4, said energy storing member 20, 42, 78 acts on said output member 24, 60.



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Regarding claim 5, said output member 24, 60 includes an abutment 18, 26, 50, 74 and said energy storage member 20, 42, 78 acts on said abutment 18, 26, 50, 74 of said output member 24, 60.

Regarding claim 6, said abutment 26 (Figs. 1 and 2) moves about said pivot point A as said output member 24 moves.

Regarding claim 7, said abutment 26 is a crank pin. See paragraph [0013] and claim 15.

Regarding claim 8, said energy storing member 20, 42, 78 provides an assistance force as said output member 24, 60 moves in said first direction, said assistance force progressively increases to a maximum and then decreasing from said maximum.

Regarding claim 12, Spurr teaches an actuator assembly comprising:

an actuator 14 drivingly connected to an output member 24, 60 by a transmission path, wherein said actuator 14 moves said output member 24, 60 about a pivot point A in a first direction from a rest position to an actuated position and moves said output member 24, 60 in a second direction from said actuated position to said rest position; and

an energy storing member 20, 42, 78 which provides a force, wherein movement of said output member 24, 60 by said actuator 14 in said first direction being assisted by said energy storing member 20, 42, 78 over a substantial portion of said movement to said actuated position, and movement of said output member 24, 60 by said actuator 14 in said second direction stores energy in said energy storing member 20, 42, 78 over a substantial portion of said movement to said rest position, and with said output member 24, 60 in said rest position, said force acts to drive said output member 24, 60 in said second direction. See claims 1-25.

Regarding claims 20 and 22, see regarding claim 5 above.

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Regarding claims 21 and 23, said actuator is *operable* to move a component of a latch assembly (*id.* paragraphs [0001] and [0002]) from a first position to a second position to change a state of the latch assembly.

13. Applicant's arguments filed August 24, 2006 have been fully considered but they are not persuasive.

### ART REJECTION

#### PEARSON

At the outset, Applicant contended:

Pearson does not disclose an actuator assembly including an actuator that moves an output member in a first direction and a second direction. Pearson discloses an actuator 14 that is capable of moving a gear 22 in a clockwise direction (a second direction) from an actuated position to a rest position when viewing Figure 1. However, *the actuator 14 is only capable of moving the output member in another direction as claimed.* (Emphasis added).

The Examiner respectfully submits that the above contention interpreted the gear 22 as the output member but ignored another output gear 30 as explicitly described in, e.g., paragraph [0020] of Pearson. The output gear 30 is capable of moving in first and second directions (counterclockwise and clockwise directions) as seen in paragraph [0020]. As such, the spring 40 acts substantially through the pivot point 32 and performs the claimed function in claims 1 and 12. Applicant's further arguments regarding the gear 22 are deemed to be moot because the Examiner changed the interpretation in the instant Office action.

#### SPURR

First, Applicant asserted:

In Spurr, a spring 20 provides a force that acts in a horizontal sense when viewing Figure 1 proximate in line with

arrow A. However, the force does not act through the pivot point of a worm wheel 24. As shown in Figure 3, a spring 78 is not capable of providing a force that acts substantially through a pivot point A of a worm wheel 60. The force acts on the spring abutment 74, but not through the pivot point A. *Spurr does not disclose an energy storing member that provides a force that acts substantially through a pivot point of an output member in a rest position as recited in claim 1.* (Emphasis added).

The Examiner respectfully submits that Applicant's contention is unsupported by the limitations appearing in the claims. *In re Self*, 213 USPQ 1, 5 (CCPA 1982). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). It is well settled that anticipation law requires distinction be made between invention described or taught and invention claimed. It does not require that the reference "teach" what subject patent application teaches, it is only necessary that the claim under attack, as construed by the Court, "read on" something disclosed in the reference, i.e., all limitations of the claim are found in reference, or are "fully met" by it. *Kalman v. Kimberly Clark Corp.*, 218 USPQ 781, 789 (CAFC 1983).

In the case *sub judice*, Fig. 1 shows that Spurr's gear 24 and Spurr's member 18 are connected together by the lost motion linkage, i.e., the crank pin 26 and the slot 28. The spring 20 acts on the member 18. Since the member 18 is connected with the gear 24 via the pin 26, thus, the spring force of the spring 20 is in turn transmitted to the pin 26. When the pin 26 is moved from position B to position C or from position C to position B as shown in Fig. 1 and described in paragraphs [0014]-[0016], the gear 24 is rotated or moved about its pivot point A (Fig. 3). Therefore, the spring force of the spring 20 is in-turn transmitted from the pin 26 to the gear 24, and consequently to the pivot point A as claimed. Note that Applicant's claim 1 recites

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“said force acts *substantially* through said pivot point.” The term “substantially” is a broad term. It is a relative term that clearly implies something less than exactly acting through the pivot point. See *Performed Line Products Co. v. Fanner Mfg. Co.*, 124 USPQ 288 (DC N Ohio) and MPEP 2173.05(b). In the instant case, it does not require that all of the spring force of the spring must act directly on the pivot point of the output member. Therefore, even though the spring force of Spurr’s spring 20 partially or indirectly acts on the pivot point of the output member 24, Spurr’s spring 20 “reads on” the claimed energy storing member.

Similarly, in the embodiment of Fig. 2, Spurr’s spring 42 partially or indirectly acting on the pivot pin A of the output member 24 “reads on” the claimed energy storing member. Particularly, in the embodiment of Fig. 3, Spurr’s spring 78 in Fig. 3 directly acts on the abutment member 74. Further, the abutment member 74 is concentric with the output member 60. Therefore, the spring force of the spring 78 acts on the pivot point A of the abutment member 74 or the output member 60 as claimed. See paragraphs [0023]-[0032].

Second, Applicant averred that Spurr does not disclose an actuator in which a force acts to drive an output member in a second direction with the output member in a rest position as recited in claim 12.

The above contention is likewise unsupported by substantial evidence in the record. Indeed, Spurr discloses the actuator 14 in which the (motor) force acts to drive the output member 24 in a second direction when the output member 24 in a rest position. For example, Spurr’s abstract states: “the actuator being capable of moving the output member in a first direction from a rest condition of the actuator assembly to an actuated condition and also being capable of moving the output member in a second direction from the actuated condition to the

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rest condition.” The output member mentioned in the abstract is the member 18. This member 18 is connected to the output gear 24 via the lost motion linkage 26, 28, 62, 72, *etc.* Since the member 18 is moved from the rest condition/position to the actuated condition/position or *vice versa*, the gear 24 is also moved therewith from the rest position to the actuated position or *vice versa* due to the linkage 26, 28, 62, 72, *etc.* Consequently, Spurr’s actuator 14 is capable of moving/driving the output gear 24 from a second direction with the output member in a rest position to a first direction with the output member in an actuated position or *vice versa*. Therefore, Spurr’s actuator “reads on” Applicant’s claimed actuator.

### CONCLUSION

For the foregoing reasons, claims 1-12 and 20-23 are not in the condition for allowance.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T. Luong whose telephone number is 571-272-7109. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Luong

October 30, 2006



Vinh T. Luong  
Primary Examiner